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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,759	06/02/2006	Taichiro Miyao	SHO-0110	3910

23353 7590 01/26/2007
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EXAMINER

HYEON, HAE M

ART UNIT	PAPER NUMBER
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2839

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/541,759

Applicant(s)

MIYAO ET AL.

Examiner

Hae M. Hyeon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

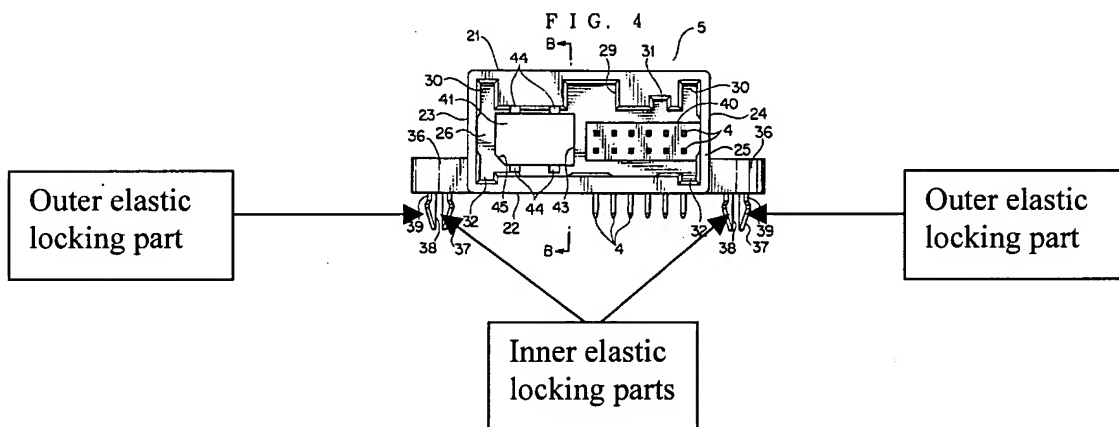
2. Claims 1, 3-7, 9-13 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirakawa et al (US 6,652,154 B2) in view of Yamaguchi (US 6,558,045 B2).

Shirakawa discloses an optical receptacle comprising a tubular main housing 5; a socket housing 12 inserted and attached to the main housing 5; elastic locking parts 37 extending from an outer peripheral surface of the main housing 5 for locking into a printed board 18; and a pin 100 for providing a grounding electrical connection between the socket housing 12 and the printed board 18. The socket housing 12 includes a casing 8 made of conductive synthetic resin material containing carbon fibers or the like (see column 8, lines 39-44) that receives and stores optical elements 6, 7 so as to provide an electrical connection between the optical elements 6, 7 and the printed board 18. The elastic locking parts 37 have a first elastic locking part and a second elastic locking part (one on right side and one on left side of the main housing 12). Each locking part 37 comprises a main body extending from the main housing 5 and a locking member 39 extends from the main body so as to be engaged with a locking hole (see Fig. 1) of the printed board 18, wherein an inner locking part members are positioned so as to face each other and an outer locking part members are positioned so as to oppositely face each other (see Fig. 4). However, the pin 100 of Shirakawa also is not a locking slotted pin.

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Yamaguchi discloses an optical receptacle 1 comprising a tubular main housing 21; a socket housing 6; and a grounding locking pin 22 with a slot 39 for providing a grounding electrical connection between the main housing 21 and a printed board 26 and providing a secure engagement of the main housing 21 to the printed board 70.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the optical receptacle taught by Shirakawa such that it would have a slotted grounding locking pin as taught by Yamaguchi in order to provide a grounding connection to the socket housing and at the same time securely mount the socket housing on a printed board.



3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirakawa and Yamaguchi as applied to claims 1, 3-7, 9-13 and 15-19 above, and further in view of Masashi et al (JP 200-347073).

Claim 2 recites an elastic claw extending towards a connection opening part inside the main housing for holding an optical plug inserted within the main housing.

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While Shirakawa and Yamaguchi discloses an optical receptacle having a tubular main housing with a connection opening part for receiving an optical plug, Shirakawa and Yamaguchi do not disclose an elastic claw within the main housing for holding the optical plug.

Masashi, however, discloses an optical receptacle 30 comprising a tubular main housing 50 having a connection opening part 53 and an elastic claw 64 within the main housing 50 which extends towards the connection opening part 53 to hold an optical plug inserted within the main housing 50.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the optical receptacle taught by Shirakawa or Yamaguchi such that it would have an elastic claw within a main housing as taught by Masashi because the elastic claw would securely engage and hold an optical plug inserted within the main housing.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirakawa or Yamaguchi as applied to claims 1, 3-7, 9-13 and 15-19 above, and further in view of O'Connor (US 4,688,875).

Claim 8 recites that a first line including a plurality of first elastic locking parts and a second line including a plurality of second elastic locking parts are aligned in parallel. While Shirakawa only discloses only one elastic locking part on each side of the main housing 5, O'Connor discloses a receptacle 100 comprising a main housing 110 having four elastic locking parts 127, wherein each elastic locking part 127 comprises a main body 128 and a locking part 129 protrudes from the main body 128 and locked to a locking hole of a printed board 300. One pair of the elastic locking parts 127 is on one side of the main housing 110 and the other pair of the elastic locking parts 127 is on the opposite side of the main housing 110. Two pairs of the elastic locking parts 127 are aligned and parallel to each other.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a main housing and a socket housing of the optical receptacle taught by Shirakawa such that it would have an elastic locking part as taught by O'Connor because the elastic locking part would securely fix the main housing and the socket housing of the optical receptacle on a printed board. Furthermore, the use of an elastic locking part through a hole on a surface is one of the well-known methods of fixing a body on the surface.

Response to Arguments

5. Applicant's arguments with respect to claims 1-13 and 15-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,652,154 B2 by Shirakawa et al and US Patent No. 6,761,586 B2 by Kayama et al.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh

hnh

Hae Moon Hyeon